

REMARKS

In the Office Action, the Examiner rejected claims 1-24. By this paper, Applicants have cancelled claim 23, added new claim 25, and amended claims 1, 17, and 20 for clarification of certain features to expedite allowance of the present application. These amendments do not add any new matter. Upon entry of these amendments, claims 1-22 and 24-25 are pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejection under 35 U.S.C. § 112

In the Final Office Action, the Examiner rejected claims 17 and 23 under 35 U.S.C. § 112, first paragraph, because:

[T]he claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Office Action, page 2. Although Applicants believe that claims 17 and 23, as previously presented, were fully supported by the specification, as originally filed, Applicants have chosen to amend claim 17 and cancel claim 23, as indicated above, to obviate the Section 112 rejection. With regard to amended claim 17, Applicants respectfully direct the Examiner to Fig. 2 of the present application and its associated text, which clearly support claim 17's limitation "a controller, which is adapted to process information

communicated with the at least one base station, wherein the controller is located between the base station and a service network.” For at least this reason, Applicants respectfully request withdrawal of the pending Section 112 rejection.

Claim Rejection under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-5, 8-11, 17-21, 23, and 24 under 35 U.S.C. § 102(a) as being unpatentable over Chen et al. (U.S. Pub. No. 2003/0211859, hereafter “the Chen reference”) in view of Naghian (U.S. Patent No. 6,879,574, hereafter “the Naghian reference”). Further, the Examiner rejected claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over the Chen and Naghian references in view of Kowalski et al. (U.S. Patent No. 6,631,410, hereafter referred to as “the Kowalski reference”); rejected claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over the Chen and Naghian references in view of Eilers et al. “Reradiation (Echo) Analysis of a Tapered Tower Section Supporting a Side-Mounted DTV Broadcast Antenna and Corresponding Azimuth Pattern,” (hereafter referred to as “the Eilers reference”); rejected claims 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over the Chen and Naghian references in view of Ketonen (U.S. Patent No. 6,104,917, hereafter referred to as “the Ketonen reference”); and rejected claim 22 under 35 U.S.C. § 103(a) as being unpatentable over the Chen and Naghian references in view of Onweller et al. (U.S. Patent No. 6,931,102, hereafter referred to as “the Onweller reference”).

Applicants respectfully traverse this rejection.

Legal Precedent

First, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

Second, in presenting a Section 103 rejection, the Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. See *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). “Broad conclusory statements standing alone are not ‘evidence’.” *In re Kotzab*, 55 U.S.P.Q. 2d 1314, 1317 (Fed. Cir. 2000). Thus, when prior art references require a selected combination or modification to render obvious a subsequent invention, there must be some reason for the combination or modification

other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination or modification. *See Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). Indeed, the Federal Circuit has warned that the Examiner must not “fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *See In re Dembicza* 50 U.S.P.Q. 2d 52 (Fed. Cir. 1999). (quoting *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)). Moreover, avoiding hindsight reconstruction is especially important regarding less technologically complex inventions, where the very ease which the invention can be understood may prompt one to employ such hindsight.

See id.

Third, when prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Fourth, the Federal Circuit has held that if proposed modification renders the reference being modified *inoperable for its intended purpose*, the reference teaches away from a proposed modification. *See In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984; *see also In re Schulpen*, 157 U.S.P.Q. 52, 54 (C.C.P.A. 1968). More recently, the Federal Circuit has again reiterated this tenet of law stating that “[i]f when combined, the references ‘would produce a seemingly inoperative device,’ then they teach away from their combination.” *Tec-Air Inc. v. Denso Manufacturing Michigan Inc.*, 52 U.S.P.Q. 1294, 1298 (Fed. Cir. 1999) *citing In re Sponnoble*, 160 U.S.P.Q. 237, 244 (C.C.P.A. 1969).

The Cited References do not Teach or Suggest Every Feature of the Claims

Applicants respectfully assert that several features of independent claims 1, 17, and 20 are not disclosed or suggested by the Chen reference or the Naghian reference either alone or in combination with each other. For example, independent claim 1 recites a “transceiver unit comprising … a communication interface … to facilitate communication between the transceiver and an access network unit over an undedicated public network, *wherein the communication between the transceiver and the access network unit is independent of a dedicated connection.*” (Emphasis added). Independent claim 17 recites “at least one routine for facilitating communication of information *over an undedicated public network* between at least one base station… and a controller…located between the base station and a service network.” (Emphasis added). Independent claim 20 recites “processing the information to form an information packet

suitable for transmission to an access network unit via an undedicated public network; and transmitting the information packet to the access network unit *independent of a dedicated connection.*" (Emphasis added).

In sharp contrast, neither of the cited references discloses the above-recited features. First, the Examiner conceded in the Final Office Action that the Chen reference does not disclose or suggest these features. Final Office Action, pages 4, 7, and 8-9. Contrary to the Examiner's allegations, however, the Naghian reference does not cure the admitted deficiencies of the Chen reference, as the Naghian reference also discloses communication independent of a dedicated connection. In the Final Office Action, the Examiner alleges that wireless router 125 of the Naghian reference is equivalent to the "transceiver unit" of claim 1 (for example) and alleges that the mesh network ("MN") 105 is equivalent to claim 1's "access network unit." Final Office Action, page 4. The Examiner then asserts that the connection between the wireless routers 125 and the MN 105 is "independent of a dedicated connection," as recited in claim 1, for example.

This assertion, however, is *incorrect*. To the contrary, the connection between the wireless router 125 and the MN 105 involves *at least two dedicated connections* – namely the Servicing GPRS Support Node ("SGSN") 115 and the link between the SGSN 115 and the wireless routers 125. Naghian, col. 13, line 65 – col. 14, line 24; *see also* Fig. 1. For at least this reason, Applicants respectfully assert that neither of the cited references, alone or in combination, disclose or suggest the above-recited features of independent

claims 1, 17, and 20. Accordingly, Applicants respectfully request withdrawal of the pending Section 103 rejection and allowance of these claims that the claims that depend therefrom.

Improper Combination - Lack of Objective Evidence of Reasons to Combine

As described above, the Examiner combined the Chen and Naghian references in rejecting independent claims 1, 17, and 20. However, the Examiner has not shown the requisite motivation or suggestion to modify or combine the Chen and Naghian references to reach the present claims. As summarized above, the Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. at 1430. In the present rejection, the Examiner combined the Chen and Naghian references based on the *conclusory and subjective statement* that it “would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Naghian into the system of Chen for the benefit of establishing an ad-hoc network.” See Office Action, page 4. This statement, however, is not evidence nor does it point to any place in either of the references that provides any evidence of a motivation to combine the references. Accordingly, Applicants challenge the Examiner to produce *objective evidence* of the requisite motivation or suggestion to combine the cited references or remove the foregoing rejection under 35 U.S.C. § 103.

Improper Combination – Impermissible Hindsight Reconstruction

In addition, Applicants also assert that there is no motivation to combine the Chen and Naghian references as posited by the Examiner. As discussed above, the cited references must suggest the desirability of the combination. *In re Mills*, 916 F.2d at 680. Here, there is no simply no suggestion to incorporate the WLAN 145 disclosed in the Naghian reference into the Chen reference. More specifically, the Chen reference discloses a *structured* group communication system 100 for “multicasting media to the group of target communication devices to save network resources.” Chen, abstract, lines 1-5. The Naghian reference, on the other hand, discloses an *unrelated* technique for creating ad-hoc, *non-structured* mesh networks. Naghian, abstract, lines 1-10. As the Chen reference mentions neither ad-hoc networks nor the desirability of modifying the system 100, there is absolutely no reason to believe that one of ordinary skill in the art would be motivated to integrate the WLAN 145 of the Naghian reference into the system 100 of the Chen reference.

Rather, this unlikely combination suggests that the Examiner has used the structure of Applicants’ own invention as a basis from which to selectively pick and choose various elements of the cited references in an attempt to cobble together obviousness rejections of independent claims 1, 17, and 20. This action, however, is clearly improper. See *In re Gorman*, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991) (*stating* “it is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, *using the applicant’s structure as a template* and selecting elements

from references to fill the gaps” (emphasis added)). Accordingly, Applicants respectfully assert that the Examiner has not established a *prima facie* case of obviousness against independent claims 1, 17, and 20 and request withdrawal of the pending Section 103 rejection.

Improper Combination – Reference rendered inoperable for its intended purpose

Applicants also respectfully assert that there is no motivation to combine the Chen and Naghian references, because modifying the Chen reference, as proposed by the Examiner, would render the Chen reference inoperable for its intended purpose. Towards this end, Applicants remind the Examiner that there is no motivation to combine two references if “when combined, the references ‘would produce a seemingly inoperative device’” *Tec-Air Inc. v. Denso Manufacturing Michigan Inc.*, 52 U.S.P.Q. 1294, 1298 (Fed. Cir. 1999) *citing In re Sponnoble*, 160 U.S.P.Q. 237, 244 (C.C.P.A. 1969).

As described above, the Chen reference discloses a *structured* group communication system 100 for “multicasting media to the group of target communication devices to save network resources.” Chen, abstract, lines 1-5. As illustrated by Figs. 1 and 2 of the Chen reference, the system 100 includes a mobile station 206 that transmits data wirelessly across an air interface 208 to a base station 204. *See also* Chen, paragraph 22, lines 1-8. This received data is then transmitted from the base station 204 to a base station controller (“BSC”) 110. *See* Chen, Figs. 1 and 2. The received data then travels from the BSC 110 to the packet control function (“PCF”) 112 then to the packet data

switching node (“PDSN”) 106, then to the IP network 108, and then to the group call server 102. *See* Chen, Fig. 1; *see also* paragraph 19.

Each link in this *structured transmission system* performs a vital role in organization and control of the group call. *See* Chen, paragraph 19. For example, the base station 204 processes registration information from the mobile station 206 and the PCF 112 controls routing of packets across the IP network 108. *See* Chen, paragraph 19 and paragraph 25. If, as the Examiner proposes, the base station 204, the BSC 110, the PCF 112, and the PSDN 106 were all removed and replaced with the WLAN 145 of the Naghian reference, the system 100 would simply *not function*, much less function as intended. As described above, each component of the system 100 performs a specific task, removing all of those components and replacing them with the generic WLAN 145, (as the Examiner suggests) will simply result in a non-operable system.

In further example, the WLAN 145 of the Naghian reference is never described as being able to perform the functions of the BSC 110. In addition to those features described above, the WLAN 145 is also not able to bind mobile devices with a multicast IP address nor to map registered mobile devices to an IP multicast address through a shared channel. Chen, paragraphs 43-44. For at least this reason (amongst a multitude of further examples), replacing the base station 204, the BSC 110, the PCF 112, and the PSDN 106 of the Chen reference with the WLAN 145 of the Naghian reference would clearly make the Chen reference, as modified, inoperable for its intended purpose.

Accordingly, Applicants respectfully request withdrawal of the Section 103 rejection and allowance of claims 1, 17, and 20, as well as the claims that depend therefrom.

Claims 6 and 7

As stated above, the Examiner rejected claims 6 and 7 as obvious over the Chen and Naghian references in view of the Kowalski reference. Applicants respectfully submit that claims 6 and 7 are allowable based on their dependencies on claim 1, because the Kowalski reference does not cure the deficiencies described above with regard to the Chen and Naghian references. For at least this reason, claims 6 and 7 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejection of claims 6 and 7.

Claims 12-14

The Examiner rejected claims 12-14 as obvious over the Chen and Naghian references in view of the Eilers reference. Applicants respectfully submit that claims 12-14 are allowable based on their dependencies on claim 1, because the Eilers reference does not cure the deficiencies described above with regard to the Chen and Naghian references. For at least this reason, claims 12-14 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejection of claims 12-14.

Claims 15 and 16

As stated above, the Examiner rejected claims 15 and 16 as obvious over the Chen and Naghian references in view of the Ketonen reference. Applicants respectfully submit that claims 15 and 16 are allowable based on their dependencies on claim 1, because the Ketonen reference does not cure the deficiencies described above with regard to the Chen and Naghian references. For at least this reason, claims 16 and 16 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejection of claims 15 and 16.

Claim 22

As stated above, the Examiner rejected claim 22 as obvious over the Chen and Naghian references in view of the Onweller reference. Applicants respectfully submit that claim 22 is allowable based on its dependency on claim 1, because the Onweller reference does not cure the deficiencies described above with regard to the Chen and Naghian references. For at least this reason, claim 22 is believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejection of claim 22.

New Claims

Applicants respectfully requests that new dependent claim 25 be considered. This claim is fully supported by the specification, and Applicants respectfully submit that the prior art of record does not disclose the recited subject matter of claim 25. For this reason, Applicants respectfully submit that new claim 25 is allowable over the cited references, taken alone or in combination with each other.

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



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